AMENDMENTS TO THE CLAIMS

1-4.   (Canceled)

5.   (Currently amended) A method for estimating the signal to noise ratio of a picture signal decoded from a compressed bit-stream, comprising the steps of determining the quantization values employed in said compression, generating a measure of the bit rate of the compressed bit-stream and deriving said estimate by processing said quantization values and said measure of the bit rate.

6-12.   (Canceled)

13.   (New) A method according to Claim 5, wherein the step of determining the quantization values comprises the step of deriving an average quantizer value for a picture.

14.   (New) A method according to Claim 13, wherein said average is taken in a logarithmic domain.

15.   (New) A method according to Claim 5, further comprising the step of using said measure of the bit rate to form a measure of picture activity.

16.   (New) A method according to Claim 15, in which the compressed bit-stream includes predicted and non-predicted pictures, and wherein said measure of picture activity is formed of the most recent non-predicted picture.

17.   (New) A method according to Claim 15, wherein the measure of picture activity comprises a product of a number of compression bits and a further function of quantization.

18.   (New) A method according to Claim 17, wherein said further function of quantization is a quadratic function.

19.   (New) A method according to Claim 17, wherein said further function of quantization is modified to take into account deviations from a pre-defined quantization weighting matrix.

20.   (New) A method according to Claim 5, wherein a base signal to noise ratio is taken as an experimental value of signal to noise ratio employing the finest allowable quantization and a pre-determined quantization weighting matrix.

21.   (New) A method according to Claim 5, wherein the quantization values are quantizer level spacings.

22.   (New) A method according to Claim 5, wherein a noise measure taken at an upstream location is passed forward for comparison with a noise measure taken at the device under test.

23.   (New) A method for estimating the signal to noise ratio $PSNR_{estimate}$ of a picture signal decoded from a compressed bit-stream, comprising the steps of determining quantization values q employed in said compression; generating a measure c of the bit rate of the compressed bitstream and processing said values and said measure to derive:

$$PSNR_{estimate} = PSNR_0 - \frac{\sum \log q}{N}(A + B\sum c \cdot f(Mq))$$

where A is a parameter that can be zero and B is a parameter that can be 1.

24.   (New) A method according to Claim 23, wherein a base ratio $PSNR_0$ is taken as an experimental value of signal to noise ratio employing the finest allowable quantization and a pre-determined quantization weighting matrix.

25.   (New) A method according to Claim 23, wherein the function f(q) is a quadratic function of q.

26.   (New) A method according to Claim 23, wherein the quantization values are quantizer level spacings.

27.   (New) A method according to Claim 23, wherein a noise measure taken at an upstream location is passed forward for comparison with a noise measure taken at the device under test.